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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/752,786	01/07/2004	Ullas Gargi	200209290-1	5270

22879 7590 11/09/2006

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EXAMINER

WONG, WILLIAM

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/752,786

Applicant(s)

GARGI, ULLAS

Examiner

William Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-31 are pending and have been examined.

Specification

1. The disclosure is objected to because of the following informalities:
 - The following abbreviations should each be spelled out, with the abbreviation in parenthesis following it:
 - CPU (fourth paragraph of part IIA on page 3)
 - PLAs, PALs, and ASICs (first paragraph on page 5)
 - LED (first paragraph on page 9)
 - GPS (last paragraph on page 16)
 - DVD (last paragraph on page 17)
 - “instantaneious” should be changed to “instantaneous” (second paragraph of part IV on page 7)

Appropriate correction is required.

2. The disclosure is objected to because it contains an embedded hyperlink (on page 13) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

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3. The use of the trademark ANOTO (on page 13) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

4. Claims 1-3, 7, 12, and 25-31 are objected to because of the following informalities:

- As per claims 1-3, 7, 12, and 25-31, the bullets should be removed.
- As per claims 1, 25, and 28, the claims recite the limitation "said user's instantaneous position". There is insufficient antecedent basis for this limitation in the claims. It is suggested by the examiner that applicant amend the limitation to recite "a user's instantaneous input position".
- As per claim 12, the semicolon after "wherein" should be removed. Additionally, the word "and" should be placed after the phrase "embedded in said medium itself;" on the same line as the phrase.
- As per claims 25-27, "computer-readable medium" should be changed to "computer-readable storage medium" to conform to the specification.

- As per claim 29, the claim recites the limitation "said user's position". There is insufficient antecedent basis for this limitation in the claim. It is suggested by the examiner that applicant amend the limitation to recite "a user's input position".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "said file index" in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim. It is suggested by the examiner that applicant either change the dependency of the claim or amend the claim to recite "The method of claim 7, wherein a *file index* was previously generated during creation of said tangible medium."

Claims - 35 USC § 112, 6th paragraph

7. It is noted that Applicant has set forth in claim 28 a "means for receiving", "means for determining and accessing", and "means for enabling."

Claim Rejections - 35 USC § 102

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8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Zimmerman (U.S. Patent Application Publication 2002/0193975).

Claim 1

As per claim 1, Zimmerman teaches a **method for assisting navigation of digital content using a tangible medium, comprising: receiving an instruction to access digital content corresponding to a portion of a tangible medium** (in figure 1 and in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media"), **said medium being readable by a user-positionable input device** (in figure 1 and in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media"), **and said digital content being accessible from a stored file** (in paragraph 118 on page 7, "All programming and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user in

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any of: conventional computer storage (local or remote), display (i.e., CRT) and/or hard copy (i.e., printed) formats"); **determining and accessing stored digital content corresponding to said user's instantaneous position on said tangible medium** (in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from storage and presented to the user"); **and enabling electronic navigation of said digital content** (in paragraph 21 on page 2, "Preferably, the multimedia data and off-line media are designed so as to provide an educational experience in which the synchronization of the probe position and output provides the visceral experience normally experienced by a user of a real tool. To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media").

Claim 2

As per claim 2, the rejection of claim 1 is incorporated and Zimmerman further teaches **determining a change in position of said input device on said tangible medium; and obtaining a new stored file corresponding to said change in position** (in paragraph 24 on page 2, "the printed medium additionally has a number of icons representing different tools to be simulated. By placing the probe over a particular icon, the tool

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represented by the icon is selected such that the retrieved multimedia data corresponds to the selected tool").

Claim 3

As per claim 3, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said determining and accessing stored digital content includes: obtaining digital signals representing a localized region of said tangible medium, said localized region being proximate to said position of said input device on said tangible medium** (in paragraph 66 on page 4, "Referring to FIG. 4, in a preferred embodiment of the present invention, probe 104 contains a CMOS monochromatic camera 400 with wide angle lens 406 and illumination system 410 to capture an image segment 408 printed on the medium 106, underneath the probe. The image is detected and transmitted to the computer 100 by image processor 402, communicating to the computer 100 through connector 404, such as Universal Serial Bus (USB)"; the computer inherently obtains digital signals through a USB connector); **determining at least one stored file corresponding to said localized region, and containing said digital content, by using pattern matching** (in paragraph 66 on page 4, "The image segment 408 is a portion of a full image 412 appearing in the off-line media 106. An image retrieval method running in the computer 100 receives the image segment 408, and outputs image identification

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and position information of the image segment 408" and in paragraph 68 on page 4, "FIG. 5 shows a flow chart summarizing the methods of sampled image to reference image matching... At block 506 the salient features of the sampled image are extracted. At block 508 the salient features of the sampled image are used to find the closest reference image" in view of figure 5; comparing salient features is one form of pattern matching); **and retrieving an appropriate portion of said file to enable user navigation** (in paragraph 21 on page 2, "Based upon the position of the probe over the off-line media, corresponding multimedia data is retrieved from storage and presented to the user... To simulate the real tool, the multimedia data corresponds to the output a real tool would produce when the real tool is used to inspect the items on the off-line media").

Claim 4

As per claim 4, the rejection of claim 3 is incorporated and Zimmerman further teaches **wherein said pattern matching is based on correlating a pattern within said localized region with a pattern in said stored file** (in paragraph 68 on page 4, "FIG. 5 shows a flow chart summarizing the methods of sampled image to reference image matching... At block 504 the sampled image is captured by the camera 400 in the probe 104. At block 506 the salient features of the sampled image are extracted. At

block 508 the salient features of the sampled image are used to find the closest reference image" in view of figure 5).

Claim 5

As per claim 5, the rejection of claim 3 is incorporated and Zimmerman further teaches **wherein said pattern matching is based on correlating a pattern embedded within said medium itself** (in paragraph 20 on page 2, "The system generally comprises a probe device and a computer. The probe is manipulated over off-line media, preferably printed medium, and information is transmitted to the computer and matched to electronic media" and in paragraph 45 on page 3, "Printed, off-line medium 106 has a suitable image 108 imprinted thereon").

Claim 6

As per claim 6, the rejection of claim 3 is incorporated and Zimmerman further teaches **wherein said tangible medium was previously created independently of said file** (in paragraph 87 on page 6, "In an application of the invention where the media 106 includes text, the user may circle text, or swipe the text with the probe 104 to select, translate, provide definition (e.g. from a dictionary), underline, highlight, make bold, copy or cut the corresponding electronic text appearing in the computer 100. In this application, images of the text, or

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salient features of the text need not be stored in the computer 100. In a preferred embodiment, text is stored as ASCII characters along with the font and other layout and contextual information to enable the computer to generate an accurate image of the page, or otherwise sufficiently represent the page").

Claim 7

As per claim 7, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said determining and accessing stored digital content includes: obtaining coordinates of said position of said input device on said tangible medium, determining at least one stored file corresponding to said position and containing said digital content, determining coordinates within said stored file, corresponding to said input device position coordinates, by using coordinate mapping** ("The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b; identifying a position on an image inherently involves obtaining and determining coordinates, and in this example, the probe position (coordinate) on the tangible medium is directly mapped to a position on the stored image); **and using said determined coordinates to retrieve an appropriate portion of said file to enable user navigation** ("...resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figure 2b).

Claim 8

As per claim 8, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said coordinate mapping involves a linear transformation from tangible medium coordinates to stored file coordinates** (in paragraph 51 on page 3, "The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b; in this example, the probe position on the tangible medium is directly mapped to the position on a stored image, and therefore inherently involves a linear transformation from tangible medium coordinates to stored file coordinates).

Claim 9

As per claim 9, the rejection of claim 7 is incorporated and Zimmerman further teaches wherein at least one of said tangible medium and said stored file includes a grid system (in paragraph 51 on page 3, "The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b; identifying a position on an image inherently involves a coordinate or grid system).

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Claim 10

As per claim 10, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said determining said stored file includes utilizing a file index read from said tangible medium** (in paragraph 49 on page 3, "FIG. 2a illustrates the use of the present invention with position and image identification information encoded in bar codes printed on the off-line media").

Claim 11

As per claim 11, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said file index was previously generated during creation of said tangible medium** (in paragraph 49 on page 3, "FIG. 2a illustrates the use of the present invention with position and image identification information encoded in bar codes printed on the off-line media").

Claim 12

As per claim 12, the rejection of claim 7 is incorporated and Zimmerman further teaches **wherein said tangible medium includes a plurality of machine-readable patterns embedded in said medium itself** (in paragraph 45 on page 3, "Printed, off-line medium 106 has a suitable image 108 imprinted thereon" and in paragraph 49 on page 3, "FIG. 2a illustrates the use of the present invention with position and image identification

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information encoded in bar codes printed on the off-line media");

said obtaining coordinates of said position of said input device is based on reading a unique pattern at said position of said input device, and analyzing said unique pattern to determine said coordinates (in paragraph 51 on page 3, "The probe 104 is placed over the picture of the hand 200 in book. The probe 104 sends bar code information to the computer. The computer decodes the bar code information into probe position and image identification, resulting in a synchronized image 204 on the computer screen of human bones 206" in view of figures 2a and 2b).

Claim 13

As per claim 13, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said digital content includes an image, and said navigation includes displaying said image** (in paragraph 81 on page 5, "The invention matches the sampled image 706 to a reference image of the frog's eye retrieved from storage device 102. Based on the probe 104 position, reference image, and tool selected, a magnified view of a frog eye 802 is presented on the computer screen 800. The invention synchronizes the movement of the probe 104 to the display of the frog's eye 802. When the user moves the tool to the right, the image of the frog's eye on the computer 800 screen would also move to the right, giving the user the

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visceral experience of holding an actual microscope over a frog's eye" in view of figure 7).

Claim 14

As per claim 14, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said digital content includes audio, and said navigation includes playing said audio** (in paragraph 77 on page 5, "When the user 616 touches a particular word, for example "forest" 618 as show in FIG. 6, the computer 610 retrieving an audio clip of the spoken word "forest" from storage 614, and played it out speakers 620. When the user 616 touches the drawing 606, the sound of a bear growling occurs" in view of figure 6).

Claim 15

As per claim 14, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium serves as a video storyboard** (in paragraph 89 on page 6, "The remote server finds the best reference image match. In response to this match, the remote server sends a video clip 914 (for example MPEG1 compressed video) to the computer for presented on the computer display 912, in response to the sampled image in the magazine 904" in view of figure 9a and 9b).

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Claim 16

As per claim 16, the rejection of claim 1 is incorporated and Zimmerman further **wherein said navigation includes at least one user-selectable mode** (in paragraph 83 on page 5, "Since the simulated display on the computer screen is not bound by the static reality of off-line media, the synchronized presentation may include dynamic images. For example when viewing the eye, the user can press a button on the probe 104 (not shown) to generate a virtual bright light at the probe, causing the image of the frog's eye 802 to retract in the socket").

Claim 17

As per claim 17, the rejection of claim 16 is incorporated and Zimmerman further teaches **wherein said modes are designated on, and selectable from, said tangible medium** (in paragraph 24 on page 2, "the printed medium additionally has a number of icons representing different tools to be simulated. By placing the probe over a particular icon, the tool represented by the icon is selected such that the retrieved multimedia data corresponds to the selected tool" and in paragraph 66 on page 4, "A presentation method running in the computer 100 receives the image segment 408 information and presents multimedia content contained in a CD-ROM storage device 102

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based on the virtual tool or function selected by the user" in view of figure 4).

Claim 18

As per claim 18, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium includes paper** (in paragraph 21 on page 2, "The probe is manipulated over off-line media, preferably printed medium," and in paragraph 26 on page 2, "Off-line media can be any non-networked media or object including books, magazines, newspapers, posters, pictures, mosaics, tapestry, two and three dimensional objects, animals, people, furniture, toys, cups, plates, silverware, business cards, and clothing").

Claim 19

As per claim 19, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said input device includes an optical device** (in paragraph 2 on page 2, "The probe includes a camera to capture image segments and transmits them to a computing device").

Claim 20

As per claim 20, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said input device includes a radio frequency device** (in paragraph

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23 on page 2, "The probe includes a camera to capture image segments and transmits them to a computing device, either local or remote, communicating through wired or wireless means" and in paragraph 45 on page 3, "...Probe device 104 is attached to computer 100 via any suitable I/O interface so as to allow the probe to input data to computer 100. The I/O interface can including wired (e.g. USB, serial, parallel, firewire, optical communication) or wireless (e.g. 802.11, Bluetooth, UHF, infrared, CDMA, G3, PCS, mobile phone, ISM band RF) means").

Claim 21

As per claim 21, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium is two-dimensional, yet includes three-dimensional information** (in paragraph 26 on page 2, "Off-line media can be any non-networked media or object including books, magazines, newspapers, posters, pictures, mosaics, tapestry, two and three dimensional objects, animals, people, furniture, toys, cups, plates, silverware, business cards, and clothing...").

Claim 22

As per claim 22, the rejection of claim 1 is incorporated and Zimmerman further teaches **using multiple tangible media to facilitate three-dimensional navigation** (in

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paragraph 72 on page 5, "When three sequential sampled images are identified as belonging to the same reference image, a match is declared", in paragraph 22 on page 7, "the multimedia data and off-line media is designed so as to provide a commerce experience in which the synchronization of the off-line media and electronic material enhances the knowledge of the user to the products in the off-line media, for example, showing different views or colors of a dress, or a simulation of the user in the dress").

Claim 23

As per claim 23, the rejection of claim 1 is incorporated and Zimmerman further teaches **wherein said tangible medium was previously created using said stored file** (in paragraph 50 on page 3, "the bar codes 202 are printed on clear plastic (e.g. mylar) sheets and adhered to the pages of the off-line media. This allows a book to be published using conventional printing techniques, and bar codes to be placed on the pages after conventional printing"; the bar codes refer to the stored files likely used in the printing of the book).

Claim 24

As per claim 24, the rejection of claim 1 is incorporated and Zimmerman further teaches **implemented in a handheld portable electronic device** ("the present

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invention may be implemented on a conventional IBM PC or equivalent, mobile phone, personal digital assistant (PDA), tablet computer, multi-nodal system (e.g., LAN) or networking system (e.g., Internet, WWW)").

Claim 25, 26, and 27

Claims 25, 26, and 27 are the computer-readable medium claims corresponding to the method claims 1, 3 and 7 respectively, and are rejected under the same reasons set forth in connection with the rejection of claims 1, 3, and 7.

Zimmerman further teaches the **computer-readable medium comprising logic instructions** (in paragraph 118 on page 7, "The above system and its described functional elements are implemented in various computing environments... All programming and data related thereto are stored in computer memory, static or dynamic, and may be retrieved by the user...").

Claim 28

Claim 28 is the system claim corresponding to the method claim 1 and is rejected under the same reasons set forth in connection with the rejection of claim 1.

Zimmerman further teaches the **means for receiving** (in paragraph 45 on page 3, "Probe device 104 is attached to computer 100 via any suitable I/O interface so as to allow the probe to input data to computer

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100. The I/O interface can including wired (e.g. USB, serial, parallel, firewire, optical communication) or wireless (e.g. 802.11, Bluetooth, UHF, infrared, CDMA, G3, PCS, mobile phone, ISM band RF) means" and in paragraph 118 on page 7, "For example, the present invention may be implemented on... multi-nodal system (e.g., LAN) or networking system (e.g., Internet, WWW)", **means for determining and accessing** (in paragraph 23 on page 2, "The computing device analyses the image segments, determines the image identity, and retrieves and presents electronic media corresponding to the image to the user"), and **means for enabling** (in paragraph 81 on page 5, "Based on the probe 104 position, reference image, and tool selected, a magnified view of a frog eye 802 is presented on the computer screen 800. The invention synchronizes the movement of the probe 104 to the display of the frog's eye 802"). Therefore, Zimmerman teaches the system claimed.

Claim 29, 30, and 31

Claims 29, 30, and 31 are the system claims corresponding to the method claims 1, 3 and 7 respectively, and are rejected under the same reasons set forth in connection with the rejection of claims 1, 3, and 7.

Zimmerman further teaches the **interface** (in paragraph 45 on page 3, "Probe device 104 is attached to computer 100 via any suitable I/O

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interface so as to allow the probe to input data to computer.

100. The I/O interface can including wired (e.g. USB, serial, parallel, firewire, optical communication) or wireless (e.g. 802.11, Bluetooth, UHF, infrared, CDMA, G3, PCS, mobile phone, ISM band RF) means") and **processor** (in paragraph 23 on page 2, "The computing device analyses the image segments, determines the image identity, and retrieves and presents electronic media corresponding to the image to the user"; a computing device inherently comprises a processor). Therefore, Zimmerman teaches the system claimed.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 5133052 A	Interactive graphical search and replace utility for computer-resident synthetic graphic image editors	Bier; Eric A. et al.
US 5583950 A	Method and apparatus for flash correlation	Prokoski; Francine J.
US 5848373 A	Computer aided map location system	DeLorme; David M. et al.
US 5933823 A	Image database browsing and query using texture analysis	Cullen; John et al.
US 5991780 A	Computer based system, method, and computer program product for selectively displaying patent text and images	Rivette; Kevin Gerard et al.
US 6081261 A	Manual entry interactive paper and electronic document handling and processing system	Wolff; Gregory J. et al.

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US 6201176 B1	System and method for querying a music database	Yourlo; Zhenya
US 6243492 B1	Image feature extractor, an image feature analyzer and an image matching system	Kamei; Toshio
US 6249590 B1	Method for automatically locating image pattern in digital images	Young; Susan S. et al.
US 6263335 B1	Information extraction system and method using concept-relation-concept (CRC) triples	Paik; Woojin et al.
US 6272245 B1	Apparatus and method for pattern recognition	Lin; Shang-Hung
US 20020001398 A1	Method and apparatus for object recognition	Shimano, Mihoko et al.
US 20020071677 A1	Indexing and database apparatus and method for automatic description of content, archiving, searching and retrieving of images and other data	Sumanaweera, Thilaka S.
US 20020091711 A1	Centralized information management	Ericson, Petter
US 20020099721 A1	Retrieval and matching of color patterns based on a predetermined vocabulary and grammar	Ganapathy, S. Kicha et al.
US 20020111960 A1	Apparatus and method for simultaneously managing paper-based documents and digital images of the same	Irons, Steven W. et al.
US 6445822 B1	Search method and apparatus for locating digitally stored content, such as visual images, music and sounds, text, or software, in storage devices on a computer network	Crill; Rikk et al.
US 6456938 B1	Personal dGPS golf course cartographer, navigator and internet web site with map exchange and tutor	Barnard; Kent Deon
US 20020193975 A1	Manipulation of electronic media using off-line media	Zimmerman, Thomas Guthrie
US 20030034463 A1	Hand-held document scanner and authenticator	Tullis, Barclay J.
US 6584465 B1	Method and system for search and retrieval of similar patterns	Zhu; Wei et al.

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US 6703633 B2 Method and apparatus for authenticating a signature Tullis; Barclay J.

US 20040249809 A1 Methods, systems, and data structures for performing
searches on three dimensional objects Ramani, Karthik et al.

Kherfi, M. L., Ziou, D., and Bernardi, A. 2004. Image Retrieval from the World Wide Web: Issues, Techniques, and Systems. ACM Comput. Surv. 36, 1 (Mar. 2004), 35-67. DOI=
<http://doi.acm.org/10.1145/1013208.1013210>

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Wong whose telephone number is 571-270-1399. The examiner can normally be reached on M-F 7:30-5:00 EST with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chameli Das can be reached on 571-272-3696. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chameli C Das
CHAMELI DAS
SUPERVISORY PATENT EXAMINER

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